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MICHELLE M. CARNIAUX
KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

TRAN, TRANG U

ART UNIT PAPER NUMBER

2614

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/250,940

Applicant(s)

CONNELLY ET AL.

Examiner

Trang U. Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-16, 18-27, 29-36, 38 and 41-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-16, 18-27, 29-36, 38 and 41-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed Oct. 13, 2004 have been fully considered but they are not persuasive.

In re pages 2-4, applicants argue that, with respect to claim 13, the Office Action admits that Michaud does not disclose an at least one target device controlled as a function of the command signal while the output device provides an output as a function of the data signal, the Office Action relies on the statement in Jackson that "the EPG and selected program are monitored during recording," as referring to this feature, and; however, it is unclear how the quoted statement of Jackson refers to this feature; that the monitoring of the EPG and the selected program of Jackson does not refer to a controlling of a target device; rather, it refers to a method of determining how to control a VCR 38; that the EPG is not a command signal because the CPU 16 relies on three factors: (1) a user-selected VCR; (2) a user-selected program; and (3) the EPG; and that nowhere does Jackson state that the CPU 16 controls the VCR 38 at the same time that the signals based upon the audio stream and video stream with which the EPG was transmitted are output to the TV/monitor 36.

In response, the examiner respectfully disagrees. First at all, the Office Action does not rely solely on "the EPG and selected program are monitored during recording" for the claimed limitation "at least one target device controlled as a function of the command signal while the output device provides an output as a function of the data signal". The Office Action relies on "a digital receiving system receives and processes a

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digital data stream containing television programming information, EPG information, and a list of video cassette recorders (VCRs) and corresponding infrared (IR) codes used to control the listed models of VCRs contained in the list, ...the digital receiving system uses the codes saved in nonvolatile memory to generate and transmit an IR signal to the VCR to start recording when the EPG determines the selected event begins, the EPG and selected program are monitored during recording, at the end of the program, and transmitted IR signal terminates the recording operation (see abstract, Figs. 1 and 2, col. 3, line 32 to col. 6, line 27)" for the claimed alleged limitation.

Jackson discloses in col. 5, lines 8-15 that "The EPG selections 7 and VCR IR code selection 11 are used to control the operation of the VCR 38, and are stored in nonvolatile memory 15. As new programming information is received via data 29, CPU 16 checks updated EPG 22 information against the EPG selections 7 stored in nonvolatile memory 15. In the preferred embodiment, nonvolatile memory 15 may be flash memory, conventional RAM utilizing a battery backup, or ferroelectric memory". It is noted that claim 13 does not specifically claim that the at least one target device is controlled as a function of **only** the command signal. Since claim 13 does not require that **only** the command signal controls the at least one target device, the claimed command signal is anticipated by the EPG of Jackson.

Jackson discloses in col. 4, lines 18-25 that "Video decompressor 28 and audio decompressor 30 accept video stream 26 and audio stream 27, respectively, and decompress them. The video stream 26 is fed to video digital to analog converter 32 and the audio stream 27 is then fed to audio digital to analog converter 34. the

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converters 32 and 34 convert the digital streams into analog baseband signals which are then output to TV/monitor 36 and VCR device 38". From the above passages it is clear that the EPG selection 7 of Jackson would control the VCR while the video and audio signals are inputted to the TV/monitor 36. Thus, Jackson does indeed disclose the claimed feature "the at least one target device is controlled as a function of the command signal while an output device at the receiving end provides an output as a function of the data signal" as required by claim 13.

In re pages 4-7, applicants argue that the remaining claims are patentable over the references for the same reasons set forth above in support of the patentability of claim 13.

In response, as discussed above, the combination of Michaud and Jackson discloses all the claimed limitations of claim 13.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-9, 12-16, 18-27, 29-32, 34-36, 38 and 41-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michaud (US Patent No. 6,057,874) in view of Jackson (US Patent No. 5,963,264).

In considering claim 41, Michaud discloses all the claimed subject matter, note 1) the claimed an input device generating a data signal is met by the information

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providers 14 (Fig. 1, col. 2, line 57 to col. 3, line 9), 2) the claimed a command device generating a command signal associated with the data signal is met by the information providers 14 (Fig. 1, col. 2, line 57 to col. 3, line 9), 3) the claimed a first device receiving the data signal and the command signal associated with the data signal, the first device generating a transmission signal including data signal and the command and the associated command signal is met by the headend 12 which receives video, audio and data content from remote service providers 14 and retransmits this information over the CATV transmission network 22, the headend 12 includes a microprocessor 100 which is coupled to an electronic storage device 104 includes a database of information related to all VCRs including manufactures 104, model number 106, **VCR control codes 108, and programming data 110** (Figs. 1 and 2, col. 3, lines 4-29), 4) the claimed a second device receiving the transmission signal and extracting the data signal and the associated command signal from the transmission signal is met by the set top terminal 20 (Figs. 1 and 3, col. 3, line 30 to col. 4, line 13), and 5) the claimed an output device receiving the data signal from the second device is met by the TV set 21 (Fig. 1).

However, Michaud explicitly does not disclose the claimed at least one target device controlled automatically as a function of the associated command signal while the output device provides an output as a function of the data signal.

Jackson teaches that a digital satellite receiving system receives and processes a digital data stream containing television programming information, EPG information, and a list of video cassette recorders (VCRs) and corresponding infrared (IR) codes

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used to control the listed models of VCRs contained in the list, ...the digital receiving system uses the codes saved in nonvolatile memory to generate and transmit an IR signal to the VCR to start recording when the EPG determines the selected event begins, **the EPG and selected program are monitored during recording**, at the end of the program, a transmitted IR signal terminates the recording operation (see abstract, Figs. 1 and 2, col. 3, line 32 to col. 6, line 27).

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the EPG and selected program are monitored during recording as taught by Jackson into Michaud's system in order to provide a method and apparatus for controlling all models of VCRs via infrared signals by providing the infrared (IR) codes necessary to operate each particular brand and model VCR and real time program scheduling information in the data stream (col. 1, lines 10-15 of Jackson).

In considering claim 2, the claimed wherein the data signal includes at least one of a video signal, an audio signal and an information signal is met by the headend 12 which receives video, audio and data content from remote service providers 14 and retransmits this information over the CATV transmission network 22 (Figs. 1 and 2, col. 3, lines 4-29 of Michaud).

In considering claim 3, the claimed wherein the output device includes at least one of a television set, a display device, an audio device and a data processor is met by the TV set 21 (Fig. 1 of Michaud).

In considering claim 4, the claimed wherein the at least one target device includes at least one of a light control device, a climate control device, a computer, a

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printer, a display device, an audio system, a telephone, a television set, a toy, a motorized device, a controllable device, a home appliance control device is met by the VCR (Fig. 6 of Michaud).

In considering claim 5, the claimed further comprising: a network arrangement facilitating a transmission of the transmission signal from the first device to the second device is met by the CATV transmission network 22 (Fig. 1 of Michaud).

In considering claim 6, the claimed wherein the network arrangement includes at least one of a television broadcast system, a communication network, a satellite network, a cable network and a telephone network is met by the CATV transmission network 22 (Fig. 1 of Michaud).

In considering claim 7, the claimed wherein the transmission signal is in one of an analog format and a digital format is met by the CATV transmission network 22 (Fig. 1 of Michaud).

In considering claim 8, the claimed wherein if the transmission signal is in the analog format, the command signal is inserted by the first device into a predetermined portion of the data signal and the command signal is extracted by the second device from the predetermined portion is met by the data inserter 114 of the transmitter and the out of band data receiver 115 from the receiver (Figs. 2 and 3, col. 3, line 66 to col. 4, line 13 of Michaud).

In considering claim 9, the claimed wherein the predetermined portion is a vertical blanking intervals portion is met by col. 3, line 66 to col. 4, line 13 of Michaud.

In considering claim 12, the claimed wherein at least one of the second device and the at least one target device is controlled as a function of the command signal is met by the TV set 21 and the VCR (Figs. 4-8).

In considering claim 13, Michaud discloses all the claimed subject matter, note 1) the claimed a command receiver receiving a command signal for use in controlling the at least one target device, the command signal being received from a command device is met by the microprocessor 100 which is coupled to an electronic storage device 10 (Fig. 2, col. 3, lines 4-19), 2) the claimed a command coder converting the command signal into a first signal, the command coder being coupled to the command receiver is met by data transmitter receiver 112 (Fig. 2, col. 3, lines 20-29) , 3) the claimed a data receiver receiving a data signal from an input device is met by the video audio programming 116 (Fig. 2, col. 3, lines 20-29), 4) the claimed data coder converting the data signal into a second signal, the data coder being coupled to the data receiver is met by the video audio programming 116 (Fig. 2, col. 3, lines 20-29), 5) the claimed a modulator coupled to the command and data coders and generating the transmission signal using the first and second signals is met by the data inserter 114 (Fig. 2, col. 3, lines 20-29), and 6) the claimed a transmitter coupled to the modulator and transmitting the transmission signal, wherein data in the command signal and data in the data signal are linked so that when the data signal is used at a receiving end of the transmission signal is met by the CATV net work 22 (Fig. 2, col. 3, lines 20-29).

However, Michaud explicitly does not disclose the claimed the at least one target device is controlled as a function of the command signal while the output device at the receiving end provides an output as a function of the data signal.

Jackson teaches that a digital satellite receiving system receives and processes a digital data stream containing television programming information, EPG information, and a list of video cassette recorders (VCRs) and corresponding infrared (IR) codes used to control the listed models of VCRs contained in the list, ...the digital receiving system uses the codes saved in nonvolatile memory to generate and transmit an IR signal to the VCR to start recording when the EPG determines the selected event begins, **the EPG and selected program are monitored during recording**, at the end of the program, a transmitted IR signal terminates the recording operation (see abstract, Figs. 1 and 2, col. 3, line 32 to col. 6, line 27).

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the EPG and selected program are monitored during recording as taught by Jackson into Michaud's system in order to provide a method and apparatus for controlling all models of VCRs via infrared signals by providing the infrared (IR) codes necessary to operate each particular brand and model VCR and real time program scheduling information in the data stream (col. 1, lines 10-15 of Jackson).

Claim 14 is rejected for the same reason as discussed in claim 1.

In consider claim 15, the claimed a controller facilitating generation of the transmission signal and a memory unit coupled to the controller and storing the

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transmission signal is met by the microprocessor 100 which is coupled to an electronic storage device 10 (Fig. 2, col. 3, lines 4-19 of Michaud).

In consider claim 16, Michaud discloses all the claimed subject matter, note 1) the claimed a receiver receiving a transmission signal is met by the tuner 113 and the out of band data receiver 115 (Fig. 3, col. 3, lines 29-65), 2) the claimed a demodulator extracting a first signal from the transmission signal is met by the tuner 113 (Fig. 3, col. 3, lines 29-65), 3) the claimed a command decoder decoding the first signal into the command signal is met by the video processor 118 (Fig. 3, col. 3, lines 29-65), 4) the claimed a data decoder decoding a data signal from the second signal is met by the tuner 113 and the out of band data receiver 115 (Fig. 3, col. 3, lines 29-65), and 5) the claimed a data transmitter receiving the data signal and providing the data signal to an output device is met by the video processor 118 (Fig. 3, col. 3, lines 29-65).

However, Michaud explicitly does not disclose the claimed wherein the at least one target device is controlled as a function of the command signal while an output device provides an output as a function of the data signal.

Jackson teaches that a digital satellite receiving system receives and processes a digital data stream containing television programming information, EPG information, and a list of video cassette recorders (VCRs) and corresponding infrared (IR) codes used to control the listed models of VCRs contained in the list, ...the digital receiving system uses the codes saved in nonvolatile memory to generate and transmit an IR signal to the VCR to start recording when the EPG determines the selected event begins, **the EPG and selected program are monitored during recording**, at the end

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of the program, a transmitted IR signal terminates the recording operation (see abstract, Figs. 1 and 2, col. 3, line 32 to col. 6, line 27).

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the EPG and selected program are monitored during recording as taught by Jackson into Michaud's system in order to provide a method and apparatus for controlling all models of VCRs via infrared signals by providing the infrared (IR) codes necessary to operate each particular brand and model VCR and real time program scheduling information in the data stream (col. 1, lines 10-15 of Jackson).

In consider claim 18, the claimed further comprising: a command dispatcher providing the command signal to a corresponding target device is met by the IR remote interface 123 (Fig. 3 of Michaud).

In consider claim 19, the claimed a controller generating a control signal using the command signal to control the at least one target device is met by the system processor 101 (Fig. 3, col. 3, lines 29-65 of Michaud), and the claimed a memory unit coupled to the controller and storing the command signal is met by the RAM 121 (Fig. 3, col. 3, lines 29-65 of Michaud).

In consider claim 20, the claimed further comprising: a filtering device coupled to the controller, the filtering device controlling and selecting the command signal as a function of predetermined variables is met by the graphical user interface (GUI) (Fig. 4, col. 4, lines 14-27 of Michaud).

In consider claim 21, the claimed wherein the filtering device is implemented as a software application, the software application being stored in the memory unit is met by the software program (Figs. 4-8, col. 4 line 14 to col. 6, line 65 of Michaud).

In consider claim 22, the claimed wherein the predetermined variables are adjusted according to a predetermined procedure is met by the software program (Figs. 4-8, col. 4 line 14 to col. 6, line 65 of Michaud).

In consider claim 23, the claimed wherein the command transmitter provides the command signal to the output device is met by the data transmitter receiver 112 (Fig. 2, col. 3, lines 20-29 of Michaud).

In consider claim 24, the claimed further comprising: a transmitting device transmitting a data to a predetermined device, the data being provided by at least one of the filtering device and the at least one target device is met by the software program for controlling the VCR (Figs. 4-8, col. 4 line 14 to col. 6, line 65 of Michaud).

In consider claim 25, the claimed wherein the transmitting device includes a modem is met by col. 3, lines 23-29 of Michaud.

In consider claim 26, the claimed wherein the predetermined variables include a profile of a user is met by Fig. 7, col. 5, line 62 to col. 6, line 27 of Michaud.

Claim 27 is rejected for the same reason as discussed in claim 41.

In consider claim 29, the claimed comprising the step of: (h) controlling at least one of the second device and the output device as a function of the command signal is met by the software program (Figs. 4-8, col. 4 line 14 to col. 6, line 65 of Michaud).

Claim.30 is rejected for the same reason as discussed in claim 20.

In consider claim 31, the claimed wherein the step (b) includes a substep of inserting the command signal into a vertical blanking interval portion of the data signal and wherein the step (d) includes a substep of extraction the command signal from the vertical blanking interval portion is met by the data inserter 114 of the transmitter and the out of band data receiver 115 from the receiver (Figs. 2 and 3, col. 3, line 66 to col. 4, line 13 of Michaud).

In consider claim 32, the claimed wherein the command signal is transmitted using one of an in-band procedure and an out-of-band procedure is met by the data inserter 114 of the transmitter and the out of band data receiver 115 from the receiver (Figs. 2 and 3, col. 3, line 66 to col. 4, line 13 of Michaud).

Claim 34 is rejected for the same reason as discussed in claim 41.

Claim 35 is rejected for the same reason as discussed in claims 41 and 2.

Claim 36 is rejected for the same reason as discussed in claim 41.

Claim 38 is rejected for the same reason as discussed in claim 41.

Claim 42 is rejected for the same reason as discussed in claims 41 and 2.

Claim 43 is rejected for the same reason as discussed in claim 41.

In considering claim 44, the claimed wherein the output device and the at least one target device are separate devices is met by the TV and the VCR of Michaud.

Claim 45 is rejected for the same reason as discussed in claim 41.

Claim 46 is rejected for the same reason as discussed in claim 2.

Claim 47 is rejected for the same reason as discussed in claim 13.

Claim 48 is rejected for the same reason as discussed in claim 44.

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4. Claims 10-11 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michaud (US. Patent No. 6,057,874) in view of Jackson (US Patent No. 5,963,264), as applied in claims 41 and 7 above, and further in view of Adams et al. (US Patent No. 6,108,042).

In considering claim 10, the combination of Michaud and Jackson discloses all the limitations of the instant invention as discussed in claims 41 and 7 above, except for providing the claimed wherein if the transmission signal is in the digital format, the command signal is attached to a data packet of the transmission signal by the first device, the data packet including the data signal, and the command signal is extracted from the data packet using the second device. Adams et al teach that the satellite receiver 14 enables reception of packetized digital data streams over a satellite link. The packetized digital data streams received by the satellite receiver 14 include video data packets, audio data packets, and associated data packets. The satellite receiver 14 transfers the received digital data stream packets to the computer system 10 over a communication line 30 (Fig. 1, col. 4, lines 9-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the command signal is attached to a data packet of the transmission signal as taught by Adams et al. into the combination of Michaud and Jackson's system in order to coordinate of video and audio data streams using association data streams to enable content programmer control of display and selection functions for a video system.

In considering claim 11, the combination of Michaud and Jackson discloses all the limitations of the instant invention as discussed in claims 41 and 7 above, except for

providing the claimed wherein if the transmission signal is in the digital format, the command signal is transmitted using a command packet by the first device, the command packet corresponding to a data packet including the data signal, and the command signal is extracted from the command packet using the second device.

Adams et al teach that the computer system 10 extracts associated data packets of the incoming packetized digital data stream on the communication line 30 and decodes the associated data packets according to a predefined video command and control protocol (Fig. 1, col. 4, lines 37-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the device which extracts the command signal from the command packet as taught by Adams et al into the combination of Michaud and Jackson's system in order to coordinate of video and audio data streams using association data streams to enable content programmer control of display and selection functions for a video system.

Claim 33 is rejected for the same reason as discussed in claim 10.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (703) 305-0090. The examiner can normally be reached on 8:00 AM - 5:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TT TT
March 30, 2005


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600